

Gamification: A Cure For The Healthcare Industry?



Gamification has been proven to enhance communication and collaboration, drive participation and increase engagement across multiple audiences within multiple industries. From entertainment to software and retail to manufacturing, companies are shaping the behaviors of their customers, employees, partners and communities by applying game mechanics to a variety of experiences. But perhaps no industry is better suited to reap the benefits of gamification than healthcare.

While adoption is still in its infancy, several healthcare companies on the cutting edge of technology are rapidly moving forward with efforts to implement gamification strategies — and for good reason: Early results signal a deeply profound and long-term impact on patients, doctors and even administrative staff. With gamification, patients can be encouraged to improve eating and exercise habits, doctors can engage and collaborate more effectively, and administrative professionals can increase performance and customer service levels, all resulting in a positive influence across the industry.

Part 1: Gamifying the patient experience

While the benefits of a healthy diet and regular exercise are well established, it can be extremely difficult for many people to change lifelong habits. Continued motivation is driven by tangible results, but lifestyle changes tend to yield these results very gradually. When patients engaged in weight loss, cholesterol reduction, exercise and other health-related programs fail to see dramatic results quickly — even if they make steady improvement — they can lose interest and enthusiasm, and frequently succumb to defeat.

The gamification of health-related programs has been shown to solve the problem of sluggish results. Gamification keeps the patient interested and engaged by offering a mechanism through which daily progress can be monitored and recorded. Badges and other rewards can be offered for completing simple tasks — an approach that breaks down an overall (and often overwhelming) goal into smaller, more easily achieved milestones.

Increased motivation, altered behavior

Say, for example, a patient wants to lose 30 pounds. To safely achieve this goal, he'll need to stay deeply committed to a regimen of diet and exercise for any number of weeks, months or even years. Some weeks, he'll feel empowered and confident, but other weeks, he may lack the motivation to exercise, surrender to the dessert tray, or partake in the additional glass of wine. A gamified program reduces the overall goal of considerable weight loss into a series of engaging tasks and challenges that motivate the participant through points, status or rewards of some kind. A few examples:

- **Stair Master Challenge:** Bypass the elevator and take the stairs every day this month, and earn a coveted Stairmaster badge and companywide status update.
- **Pedal Medal Challenge:** Bike to work twice a week for a month and earn a company logo water bottle. Keep it up for 6 months to earn a company logo cycling jersey.
- **Veggie Challenge:** Go meat-free 10 days this month to earn 500 points.

As an extension of motivation, gamification can, over time, be helpful in actually altering behavior — a vital benefit for healthcare. It's an unfortunate reality that many dieters simply deprive themselves of calories for a given period of time and once a weight loss goal is reached, most revert back to old eating habits and end up putting the weight back on again. Gamified weight loss participants, however, complete game tasks and challenges that help to alter their long-term behavior. One task may be to learn how to substitute healthy foods in place of high-fat or sugary foods. Another may be to learn new recipes, or to exercise for twenty minutes. So the process of weight loss isn't focused on a scale, but on the discovery of new options and the implementation of those options into the participant's lifestyle.

Health habits to last a lifetime

As many healthcare agencies know, habits formed during childhood are more likely to last a lifetime. Yet, young people today are experiencing health-related problems like obesity and diabetes at an unprecedented rate. According to the [Centers for Disease Control and Prevention](#):

- Since 1980, childhood obesity has more than doubled in children and tripled in adolescents.
- The percentage of obese children aged 6 –11 years in the US increased from 7% in 1980 to 18% in 2010. Over the same period, the percentage of obese adolescents aged 12 –19 increased from 5% to 18%.
- In 2010, more than one third of children and adolescents were overweight or obese.
- Obese youth are more likely to have risk factors for cardiovascular disease, such as high cholesterol or high blood pressure. In a sample of 5- to 17-year-olds, 70% of obese youth had at least one risk factor for cardiovascular disease.
- Obese children and adolescents are more likely to have pre-diabetes, and are at greater risk for bone and joint problems, sleep apnea, stigmatization, and poor self-esteem.

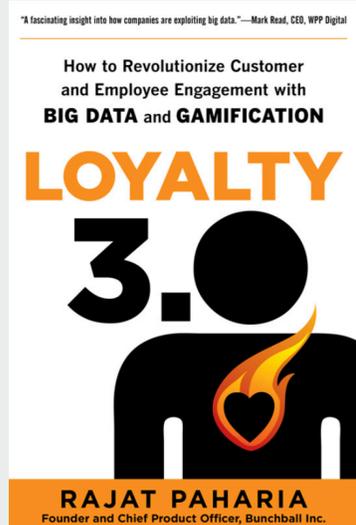
Clearly, there is an epidemic of childhood obesity in the United States and much of the developed world today. But many organizations are adopting new technologies to address and improve upon these trends.

Gamified Zamzee improves kids' physical activity by 59%

Zamzee is a social enterprise established in 2010 by HopeLab, a nonprofit research organization that leverages the power and appeal of technology to improve children's health. The company believes sedentary behavior and obesity are major problems of national importance, and points to estimates that obesity accounts for nearly 10% of US annual health care costs — \$150 billion each year. And so the Zamzee mission is to make tweens and their families more physically active — to drive positive health behavior in young people and fight chronic illnesses like cancer, obesity and depression.

Noting that young people today are often not intrinsically motivated to exercise, the company set out to create a gamified motivational program and a connected device that would engage, motivate and have a lasting and positive impact on the program's participants.

The result was the "Zamzee" device — an activity meter that functions with a motivational website meant to increase physical activity levels. Worn on a belt or carried in a pocket, the Zamzee device monitors physical activity throughout the day. Users regularly plug the device into their computers and upload recorded physical activity data into their online personal profile. The profile is a key part of the motivational website designed by the company's behavioral scientists to initiate and sustain behavioral change. Through it, kids may view their activity levels, earn points for movement, achieve goals, and convert data into points that can be redeemed for both virtual and real-world rewards.



In his book *Loyalty 3.0* author and gamification pioneer Rajat Paharia points to Zamzee as a great example of using gamification principles to “scaffold” participants up to a behavior set that they would otherwise be unlikely to adopt: **“Zamzee uses extrinsic motivators to bridge to the internal motivation, moving kids from ‘I know I should be physically active’ to ‘I’m physically active because it’s fun and feels good.’ In any effort around behavior change, the longer the feedback loop, the harder it is to change the behavior.**

Exercising for one day isn’t going to make someone fit; they need to exercise consistently over a period of time in order to see and feel the results. In that period, when they haven’t yet received the positive reinforcement of feeling fit, there are a lot of opportunities to sit on the couch and eat cupcakes. And the feedback you get from couches and cupcakes, the gratification, is immediate, which makes them much more tempting than the abstract, long- term benefits of getting fit.”

A six-month study conducted with the Robert Wood Johnson Foundation, showed that the Zamzee program significantly increased physical activity in kids and had positive impact on risk factors associated with heart disease and diabetes. The unprecedented success of the Zamzee program is a strong testament to the power of gamification. Kids are inspired by the program’s gamification mechanics (fast feedback, points, goals, levels, competition), and they work hard to succeed.

The study of 448 middle-school-aged adolescents split kids into two groups: Those that used the Zamzee activity meter and also received access to the motivational website, and those that received a Zamzee meter but had no access to the site. The study found that the kids with access to the gamified website showed a 59% increase in moderate- to-vigorous physical activity over those that were only given the meter. These results persisted throughout the study period and gamification was identified as the crucial differentiator.

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Significant increases in physical activity were seen across a number of groups at risk for sedentary behavior, including a 27% increase among overweight participants and a 103% increase among girls. Study results also showed the program had a positive effect on key biological factors associated with diseases linked to sedentary behavior. Participants experienced reduced gains in LDL or “bad” cholesterol, a risk factor for heart disease, and also showed improved blood sugar control, a risk factor for Type 2 diabetes.

But it would be a mistake to think that gamification is only suited for tweens and young adults. In fact, gamification has enjoyed its most highly publicized successes with adults. And companies like Boston Heart have taken notice.

Transforming behaviors at Boston Heart Diagnostics

Boston Heart Diagnostics is a health management company that offers diagnostic and patient management solutions to predict, prevent, manage and reverse cardiovascular disease. Boston Heart provides patients with proprietary tests and the application of cardio-informatics, and then goes a step further to provide a personalized treatment plan and support tools to guide positive lifestyle and nutrition changes that can impact heart health.

The company was searching for an effective and innovative way to help transform patient behaviors, promote healthy habits, drive compliance with individualized heart-healthy regimens and improve overall patient outcomes. At the core of this program would be a tight-knit, highly engaged social community that would act as a support system where patients help one another to overcome the numerous challenges associated with changing life-long behaviors.

After considerable research, the company opted for a gamification-based program to deliver an engaging and compelling experience for patients. An enjoyable, dynamic experience would be effective in attracting patients, driving frequent and

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regular participation, and ultimately changing patient behaviors. The company selected a Habit- Ritual model, broken down into three key phases:

Phase One: Attract

Use simple actions to focus the patient on easily accomplished tasks that establish a pattern of basic participation. Points and badges are awarded for single actions such as registration, logging-in regularly and downloading information. An early sense of competition is generated by awarding additional points for those who are the first to perform basic tasks such as registering, joining a team, selecting a coach, and so on. Through these tasks, participants are incentivized and conditioned through repeated use of the site and tools to perform healthy, positive behaviors. The experience is deeply personalized, allowing for ample self-expression through the content they share and the goals they participate in.

Phase Two: Engage

Once a basic attendance and participation pattern has been established, users quickly graduate to more complex goals requiring deeper mental and emotional engagement for completion. In this phase, program information is internalized and incorporated into users' daily lives. And it's during this phase that participants begin to significantly alter behaviors and new and positive habits become entrenched.

Phase Three: Rally

The social rally phase focuses on team collaboration and competition. Users are rewarded for encouraging teammates, submitting and rating content and participating in group challenges. Team-oriented activities fuel the social aspect of the community, and bring users a new level of challenge, encouragement, and appreciation as an integral part of the team. Many members work harder when others on the team are counting on them for success. Team members positively influence and inspire one another through their badges, rewards and accomplishments, and players are encouraged to promote the program to others.

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Each of the phases above helps the patient build to the desired end point — a transformation in behavior. And throughout, participants remain engaged and invested in the program because they:

- Are driven by internal and external motivation factors and overall enjoyment
- Achieve badges, rewards and other accolades for their efforts
- Perceive themselves as a part of a group focused on accomplishing a goal
- Enjoy support and positive reinforcement from friends, family and team members
- Feel connected and not as though they are “going it alone”

Part II: Gamifying the employee experience

Employees are the lifeblood of the healthcare industry, and like all organizations today, healthcare facilities are eager to raise the focus, value and commitment of their employees. And for good reason: A 2010 study by Towers Watson found that companies with high levels of employee engagement enjoyed margins significantly higher than those with low engagement scores.

Improving customer service with gamification

In healthcare, customer service has always been a key differentiator, but recently it has gained new clout. As of January 2013, federal funding for all public healthcare facilities is now directly tied to the patient experience, as measured through post-visit patient surveys. [The Hospital Consumer Assessment of Healthcare Providers and Systems \(HCAHPS\)](#) survey now places a premium on customer satisfaction and quality care. This means patients — and their perspectives on the level of customer service they receive — can have a significant impact on the financial state of the healthcare organization. The customer experience score directly affects the amount of federal funding each hospital receives, rewarding facilities with high scores and punishing those with low scores. The aim is to realign priorities to focus on patient quality and experience.

So, for today's healthcare facilities, customer service has become among the most important features of the business, and consequently, there never has been a more appropriate time to incorporate a gamification program into the mix. A gamified workforce has been shown to significantly increase employee engagement, and studies have proven that highly-engaged, committed employees translate directly to increased levels of customer satisfaction.

Increasing doctor participation

To further illustrate the opportunity gamification presents to the healthcare community, consider WorldOne, a company focused on delivering the highest quality healthcare data in the industry. The company's global offices provide clients with data collection and processing services, survey programming, hosting and translation. Over the past decade, the company has greatly expanded its traditional research methodologies and played a key role in pioneering global online healthcare research. Today, they provide clients with access to 1.8 million healthcare professionals around the world.

The core value of WorldOne's services depends upon the extensive participation of healthcare professionals. WorldOne members complete surveys, provide thought leadership content, collaborate with one another and post and respond to various topics of discussion. Participation is crucial, and not just in terms of the company's success. Deeply engaged participation by members creates an increasingly valuable repository of information and a resource point for healthcare professionals around the world. Information on everything from virus outbreaks to innovative medical procedures to administrative best practices is made available to global members.

Today, WorldOne is instituting a gamified community to drive increasing levels of participation from doctors — to submit surveys, provide content, and further collaborate within the community by routinely asking and responding to questions, commenting on various topics, rating content and sharing new information. A gamified community will motivate member doctors to share vital information, perspectives and first-hand experience with one another, and in the process generate a strong personal reputation as a global expert on a given topic. A gamified program can effectively enhance career development by making expertise obvious to others within the community.

Gamified healthcare

Information published by leading academics focused on human motivation combined with gamification industry expertise suggests that there are five key intrinsic human motivators. They are:

- Autonom — the urge to direct our own lives
- Mastery — the desire to improve at something meaningful
- Purpose — the yearning to act in the service of something larger than ourselves
- Progress — the desire to see results in the direction of mastery and greater purpose
- Social Interaction — the need to belong; to connect and interact with others

These motivators cross professions, generations, demographics, cultures and genders. They speak to us all. By incorporating the appropriate set of gamification mechanics into virtually any area of the healthcare industry, companies can create an experience that drives positive behavior by leveraging motivators. Whether your company is looking to assist its patients in their march towards better health, interested in achieving higher levels of customer satisfaction or hoping to increase doctor participation, gamification could be the solution that provides the impact you've been looking for.



About Bunchball

BI WORLDWIDE's Bunchball Nitro is the industry's leading engagement technology powered by gamification. Purpose-built for the enterprise, BI WORLDWIDE's proven engagement solutions motivate employee, partner and customer behaviors while delivering the performance intelligence needed to drive business results. An early visionary, Bunchball wrote the book on gamification with the 2013 best seller *Loyalty 3.0*, and is widely credited for numerous market innovations, including a patent for Gamification as a Service. More than 400 enterprise customers rely upon Bunchball for the company's expertise, innovations and proprietary analytics that deliver proven business results, and Bunchball is the partner of choice to industry leaders. In April 2018, Bunchball was purchased by BI WORLDWIDE to increase its impact on employee motivation and sales effectiveness. Learn more at www.biworldwide.com/gamification, read the blog at www.biworldwide.com/blog, or follow @biworldwide on Twitter.

www.biworldwide.com
U.S. Patent No. 8,768,764
U.S. Patent No. 9,779,421

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